

**Listing of Claims:**

1. (currently amended) An optical sensor system configured to be mounted to a vehicle, comprising: at least one optical sensor and at least one lens; and at least one electro-optic variable aperture positioned between said at least one optical sensor and said at least one lens along an optical axis of said optical sensor, wherein said electro-optic variable aperture comprises a solution-phase medium electro-optic medium.

2. (currently amended) An optical sensor system as in claim 1 wherein said ~~electro-optic variable aperture comprises an electro-optic medium selected from the group comprising: a solution-phase medium, a surface-confined medium, a solid-state medium and an electrodeposition medium~~ is a free-standing gel.

3. (original) An optical sensor system as in claim 1, said electro-optic variable aperture comprising at least one substrate comprising a convex inner surface.

4. (original) An optical sensor system as in claim 1, said electro-optic variable aperture comprising at least one substrate comprising an electrode layer on at least one surface comprising a variable sheet resistance.

5. (original) An optical sensor system as in claim 4 wherein said variable sheet resistance defines a series of concentric rings and, or, a circle.

6. (original) An optical sensor system as in claim 5, said series of concentric rings comprising at least one inner ring or circle comprising a higher sheet resistance than at least one outer ring.

Appl. No. 10/659,808  
Amendment  
February 15, 2005

7. (original) An optical sensor system as in claim 1, said electro-optic variable aperture comprising an electro-optic medium comprising varying concentrations of active materials.
8. (original) An optical sensor system as in claim 7 wherein said varying concentrations of active materials define a series of concentric rings and, or, a circle.
9. (original) An optical sensor system as in claim 8, said series of concentric rings comprising at least one inner ring or circle comprising a higher sheet resistance than at least one outer ring.
10. (original) An optical sensor system as in claim 1, said electro-optic variable aperture comprising a cell spacing of about 50  $\mu\text{m}$ .
11. (original) An optical sensor system as in claim 1, said electro-optic variable aperture comprising at least one substrate comprising an electrode comprising a sheet resistance greater than about 80  $\Omega/\text{quadrature}$ .
12. (original) An optical sensor system as in claim 1, said electro-optic variable aperture comprising a highly concentrated electro-optic medium.
13. (original) An optical sensor system as in claim 1 further comprising a control configured to at least periodically shunt said electro-optic variable aperture.
14. (twice amended) An optical system configured to be mounted to a vehicle, comprising: at least one electro-optic variable aperture comprising at least a center area with different light ray attenuation characteristics than an area at least partially surrounding said center area, wherein the optical system is incorporated in a vehicle

equipment system.

15. (previously amended) An optical system as in claim 14 wherein said electro-optic variable aperture comprises an electro-optic medium selected from the group comprising: a solution-phase medium, a surface confined medium, a solid state medium and an electrodeposition medium.

16. (previously amended) An optical system as in claim 14, said electro-optic variable aperture comprising at least one substrate comprising a convex inner surface.

17. (previously amended) An optical system as in claim 14, said electro-optic variable aperture comprising at least one substrate comprising an electrode layer on at least one surface comprising a variable sheet resistance.

18. (previously amended) An optical system as in claim 17 wherein said variable sheet resistance defines a series of concentric rings and, or, a circle.

19. (previously amended) An optical system as in claim 18, said series of concentric rings comprising at least one inner ring or circle comprising a higher sheet resistance than at least one outer ring.

20. (previously amended) An optical system as in claim 14, said electro-optic variable aperture comprising an electro-optic medium comprising varying concentrations of active materials.

21. (previously amended) An optical system as in claim 20 wherein said varying concentrations of active materials define a series of concentric rings and, or, a circle.

22. (previously amended) An optical system as in claim 21, said series of concentric rings comprising at least one inner ring or circle comprising a higher sheet resistance than at least one outer ring.

23. (previously amended) An optical system as in claim 14, said electro-optic variable aperture comprising a cell spacing of about 50  $\mu\text{m}$ .

24. (previously amended) An optical system as in claim 14, said electro-optic variable aperture comprising at least one substrate comprising an electrode comprising a sheet resistance greater than about 80  $\Omega/\text{square}$ .

25. (previously amended) An optical system as in claim 14, said electro-optic variable aperture comprising a highly concentrated electro-optic medium.

26. (previously amended) An optical system as in claim 14 further comprising a control configured to at least periodically shunt said electro-optic variable aperture.

27. (currently amended) An optical sensor system configured to be mounted to a vehicle, comprising: at least one optical sensor; and at least one electro-optic variable aperture positioned along an optical path of said at least one optical sensor, said electro-optic variable aperture is operable to selectively attenuate light rays, wherein the optical sensor system is incorporated in a vehicle equipment system.

28. (original) An optical sensor system as in claim 27 wherein said electro-optic variable aperture comprises an electro-optic medium selected from the group comprising: a solution-phase medium, a surface confined medium, a solid state medium and an electrodeposition medium.

29. (original) An optical sensor system as in claim 27, said electro-optic variable aperture comprising at least one substrate comprising a convex inner surface.
30. (original) An optical sensor system as in claim 27, said electro-optic variable aperture comprising at least one substrate comprising an electrode layer on at least one surface comprising a variable sheet resistance.
31. (original) An optical sensor system as in claim 30 wherein said variable sheet resistance defines a series of concentric rings and, or, a circle.
32. (original) An optical sensor system as in claim 31, said series of concentric rings comprising at least one inner ring or circle comprising a higher sheet resistance than at least one outer ring.
33. (original) An optical sensor system as in claim 27, said electro-optic variable aperture comprising an electro-optic medium comprising varying concentrations of active materials.
34. (original) An optical sensor system as in claim 33 wherein said varying concentrations of active materials define a series of concentric rings and, or, a circle.
35. (original) An optical sensor system as in claim 34, said series of concentric rings comprising at least one inner ring or circle comprising a higher sheet resistance than at least one outer ring.
36. (original) An optical sensor system as in claim 27, said electro-optic variable aperture comprising a cell spacing of about 50  $\mu\text{m}$ .

Appl. No. 10/659,808  
Amendment  
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37. (original) An optical sensor system as in claim 27, said electro-optic variable aperture comprising at least one substrate comprising an electrode comprising a sheet resistance greater than about  $80 \text{ } \Omega/\text{square}$ .

38. (original) An optical sensor system as in claim 27, said electro-optic variable aperture comprising a highly concentrated electro-optic medium.

39. (original) An optical sensor system as in claim 27 further comprising a control configured to at least periodically shunt said electro-optic variable aperture.